

COOLEY LLP
 HEIDI L. KEEFE (178960)
 (hkeefe@cooley.com)
 REUBEN H. CHEN (228725)
 (rchen@cooley.com)
 DANIEL J. KNAUSS (267414)
 (dknauss@cooley.com)
 ALEXANDRA LEEPER (307310)
 (aleeper@cooley.com)
 DEEPA KANNAPPAN (313573)
 (dkannappan@cooley.com)
 3175 Hanover Street
 Palo Alto, CA 94304-1130
 Telephone: (650) 843-5000
 Facsimile: (650) 849-7400

DUSTIN M. KNIGHT (*pro hac vice*)
 (dknight@cooley.com)
 11951 Freedom Drive, 16th Floor
 Reston, VA 20190
 Telephone: (703) 456-8000
 Facsimile: (703) 456-8100

GREENBERG TRAURIG, LLP
 KYLE D. CHEN (SBN 239501)
 kchen@gtlaw.com
 1900 University, Avenue, 5th Floor
 East Palo Alto, CA 94304
 Telephone: (650) 289-7887
 Facsimile: (650) 328-8508

Attorneys for Defendant and Counter-claimant
 COOLIT SYSTEMS, INC. and Defendants
 CORSAIR GAMING, INC. and CORSAIR
 MEMORY, INC.

UNITED STATES DISTRICT COURT
 NORTHERN DISTRICT OF CALIFORNIA
 SAN FRANCISCO DIVISION

ASETEK DANMARK A/S,
 Plaintiff and
 Counter-defendant,

v.

COOLIT SYSTEMS, INC.,
 Defendant and
 Counter-claimant,
 CORSAIR GAMING, INC. and CORSAIR
 MEMORY, INC.,
 Defendants.

Case No. 3:19-cv-00410-EMC

**DEFENDANTS' NOTICE OF MOTION AND
 MOTION TO EXCLUDE CERTAIN
 OPINIONS OF DR. DAVID B. TUCKERMAN
 REGARDING INVALIDITY OF THE
 ASSERTED COOLIT PATENTS, NON-
 INFRINGEMENT OF THE ASSERTED
 COOLIT PATENTS, AND INFRINGEMENT
 OF THE ASSERTED ASETEK PATENT**

Date: May 5, 2022
 Time: 1:30 pm
 Location: Courtroom 5, 17th Floor
 Judge: Hon. Edward M. Chen

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NOTICE OF MOTION AND MOTION TO STRIKE

TO ALL PARTIES AND THEIR RESPECTIVE ATTORNEYS OF RECORDS:

PLEASE TAKE NOTICE that on May 5, 2022 at 1:30 p.m., or as soon thereafter as the matter may be heard, in this Court, located at San Francisco Courthouse, Courtroom 5 – 17th Floor, 450 Golden Gate Ave., San Francisco, CA 94102, Defendants CoolIT Systems, Inc., Corsair Gaming, Inc., and Corsair Memory, Inc. will and hereby do move the Court, to exclude the opinions (identified in the attached memorandum) regarding Dr. David B. Tuckerman’s opening expert report on invalidity of the Asserted CoolIT Patents (U.S. Patent Nos. 8,746,330; 9,603,284; and 10,274,266) served on November 3, 2021, and the testimony from Dr. Tuckerman’s December 20, 2021, December 22, 2021, and March 8, 2022 depositions; Dr. Tuckerman’s rebuttal expert report on non-infringement of the Asserted CoolIT Patents served on December 8, 2021; and Dr. Tuckerman’s opening report on infringement of the Asserted Asetek Patent (U.S. Patent No. 8,240,362) served on November 3, 2021.

This motion is based upon this notice of motion and motion, the attached memorandum, the accompanying declaration of Reuben H. Chen and exhibits thereto, and upon such other and further matters, papers, and arguments as may be submitted to the Court at or before the hearing on this motion.

MEMORANDUM OF POINTS AND AUTHORITIES

I. INTRODUCTION

Defendants CoolIT Systems, Inc. (“CoolIT”), Corsair Gaming, Inc., and Corsair Memory, Inc. (collectively “Corsair”) respectfully submit this *Daubert* motion to exclude certain portions of (1) Dr. David B. Tuckerman’s invalidity report and deposition testimony regarding whether the alleged *Antarctica* prior art discloses “microchannels”; (2) his non-infringement rebuttal report regarding his non-infringing alternatives opinions on the Asetek Gen 3 and Cooler Master products; and (3) his infringement report regarding the doctrine of equivalents for the ’362 patent’s “curved blades” limitation.¹ In those sections of his reports, Dr. Tuckerman improperly relies on speculation or unsupported and biased testimony rather than rendering independent opinions rooted in reliable data and methodologies, or raises new opinions long after Court-set deadlines without substantial justification and at considerable harm to Defendants.

In one egregious example, recognizing he had nothing to corroborate his opinions on the width of *Antarctica*’s channels, Dr. Tuckerman attempted to opine on a photo showing the first page of a document written in *Danish* that was introduced for the first time on redirect by Asetek’s counsel. Tellingly, Dr. Tuckerman’s opinions regarding that photo relied purely on counsel’s representations of that document. Dr. Tuckerman neither spoke to anyone at Asetek nor received an English translation of the document (Dr. Tuckerman admitted he does not read Danish). These opinions should be stricken as untimely and unreliable.

II. FACTUAL BACKGROUND

A. Report Regarding Invalidity of the Asserted CoolIT Patents

Eleven claims across CoolIT’s ’330, ’284, and ’266 patents remain. Each asserted claim recites or depends on an independent claim that recites a “plurality of [fins/walls]” defining a “corresponding plurality of microchannels.” (See ’330 patent, claims 1, 12, 14; ’284 patent, claims 1, 15; ’266 patent, claim 13.)² In their November 8, 2019 Joint Claim Construction and Pre-Hearing Statement, the

¹ Alternative to (1) and (2), Defendants request that Dr. Tuckerman’s Invalidity Report and Non-Infringement Rebuttal Report be excluded in their entirety for the reasons discussed in Section IV.B.

² See ECF Nos. 23-1, 23-2 and 27-4 for U.S. Patent Nos. 8,746,330 (“’330 patent”), 9,603,284 (“’284 patent”) and 10,274,266 (“’266 patent”).

parties stipulated to “microchannels” as “channels with widths up to 1 millimeter.” (See ECF No. 67 at 2.)

Dr. Tuckerman opines in his Invalidity Report that the *Antarctica* sample Asetek raises as prior art to the Asserted CoolIT Patents has “microchannels,” stating without empirical evidence that it includes a heat spreader plate with adjacent fins where “[t]he space between adjacent fins is about 0.9 – 1.0 mm[.]” (Declaration of Reuben Chen (“Chen Decl.”), Ex. 1 (Tuckerman Expert Report on Invalidity), ¶57.)³ He only cites uncorroborated testimony from Mr. Andre Eriksen, Asetek’s CEO and the named inventor to Asetek’s ’362 patent:

The heat spreader plate of the *Antarctica* includes a plurality of fins defining a corresponding plurality of channels therebetween, as shown below. The space between adjacent fins is about 0.9 - 1.0 mm, and therefore the channels formed between adjacent fins are microchannels per the parties’ stipulation that “microchannels” means “channels with widths up to 1 millimeter.” See also Andre Dep. Tr. at 117:17-25 (Mr. Eriksen who designed and developed the Antarctica waterblock testifying that the width of the channels in the Antarctica is “between 0.6 and 0.8 millimeters.”). In fact, the ’330 patent itself teaches that the “microchannel walls 110 [i.e., the fins] may be spaced apart by a separation dimension range of 20 microns to 1 millimeter[.]” ’330 patent, 3:56-60.

(*Id.*)⁴ Dr. Tuckerman never spoke with Mr. Eriksen or anyone at Asetek in preparing his report to determine the veracity of Mr. Eriksen’s statements. (Ex. 2 (Tuckerman 12/20/21 Depo. Tr.) at 141:2-4; Ex. 3 (Tuckerman 12/22/21 Depo. Tr.) at 13:1-3.) Nor does it appear that he credited Mr. Eriksen’s own sworn testimony where he acknowledged that the cited range was merely a “best guess” because he “just [did] not recall how wide they were”:

Q. Were there channels used in the Antarctica product?

A. Yes.

Q. Do you know the widths of those channels?

A. **It will be a best guess.**

Q. What’s your best guess?

A. I will say between 0.6 and 0.8 millimeters. I actually invented the tool to making the fins; **I just don’t recall how wide they were.**

³ All references to “Ex.” refer to exhibits to the Declaration of Reuben H. Chen, submitted herewith.

⁴ Paragraph 57 also appears to assert, for the first time, a “common sense”-based obviousness argument. This argument is absent from Dr. Tuckerman’s *Antarctica*-based invalidity claim charts for the “microchannel” limitations. Critically, Asetek did not include this theory in its invalidity contentions, further warranting that it be stricken.

(Ex. 4 (Eriksen 8/24/21 Depo. Tr.) at 117:17-25 (emphasis added).) Indeed, Dr. Tuckerman never recorded any measurements or demonstrated any methodology for the taking of any measurements, rendering them unreliable by immunizing them from review. (Ex. 2 (Tuckerman 12/20/21 Depo. Tr.) at 138:14-20; Ex. 5 at 14:22-15:3.)

Dr. Pokharna served his rebuttal report on December 8, 2021⁵ highlighting the shortcomings in Dr. Tuckerman's Invalidity Report for "microchannels" and providing both his methodology (*i.e.*, using electronic vernier calipers) and data showing the *Antarctica* sample's channel widths exceed 1.0 mm. (*See* Ex. 6 (Pokharna Rebuttal Report on Invalidity), ¶¶72-74.) Two weeks later, at his December 20, 2021 deposition, Dr. Tuckerman attempted to cure his deficient opinions by providing narrative, non-responsive answers to questions regarding his understanding of the evidence he cited in his Invalidity Report for "microchannels." (*See* Ex. 2 at 137:20-140:23.)

He then claimed, for the first time, that he measured the *Antarctica* channel widths and "got readings, you know, between 0.9 and 1.0"—readings he admits he never recorded, and which are not relied on or mentioned in his report. (*Id.* at 138:7-8 & errata, 138:14-16.) He also claimed that his support for the *Antarctica* channel widths was "[Mr.] Eriksen's deposition; however, I didn't think that was sufficient to be something I was going to swear to, so I wanted to inspect the device personally[.]" implying he measured the device sometime *after* Mr. Eriksen's August 24, 2021 deposition. (*Id.* at 137:22-25; *see also id.* at 141:6-10 (noting his measurements were "larger" than Mr. Eriksen's recollection).) However, he also testified twice that he took measurements back on July 5, 2021, which would have occurred *before* Mr. Eriksen's deposition and four months before he served his Invalidity Report (so he could not have been motivated by having read Mr. Eriksen's deposition transcript).⁶ (Ex. 2 at 122:20-123:11, 153:23-154:10; Ex. 5 at 8:23-9:12, 13:13-14:11.) Unsurprisingly, Dr. Tuckerman also claimed, without any supporting documentation or evidence, that

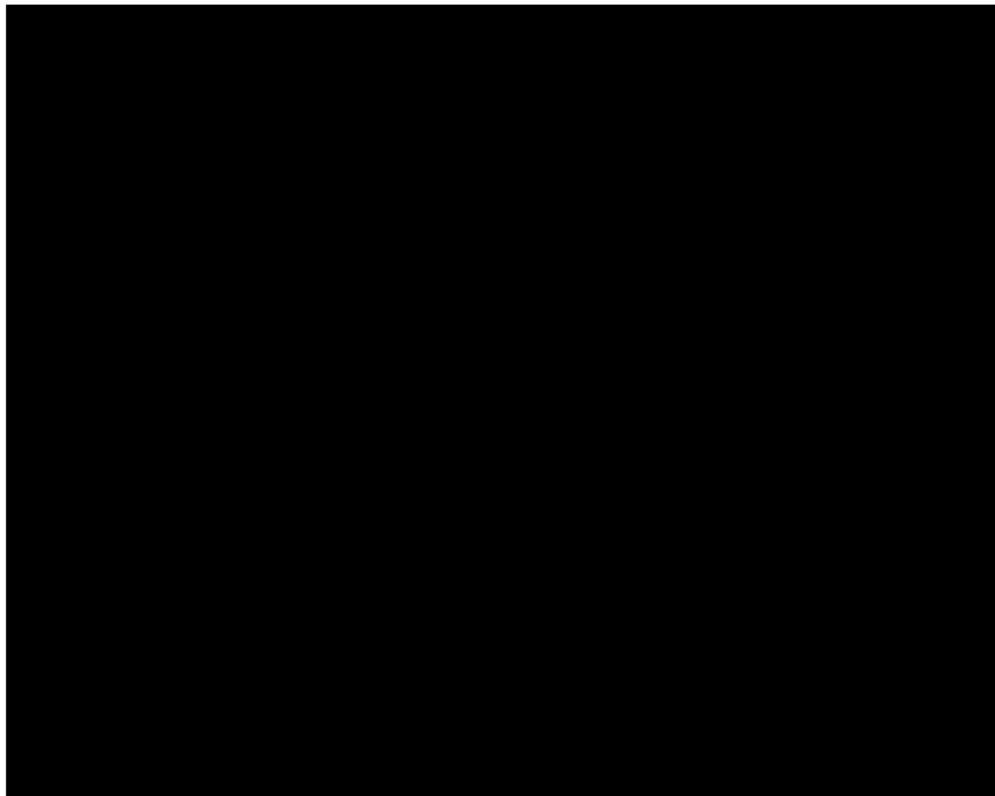
⁵ Dr. Pokharna inspected the *Antarctica* sample on June 25, 2021, taking measurements, photographs, and videos, and CoolIT produced this evidence during *fact* discovery.

⁶ If Dr. Tuckerman's July 5, 2021 testimony were found credible, that would mean he took measurements *during fact discovery*, and around the time that CoolIT produced photographs and videos of Dr. Pokharna's measurements of the *Antarctica* sample from his June 25, 2021 inspection. Fact discovery closed on August 31, 2021, giving Asetek ample time to request that Dr. Tuckerman record his measurements for Asetek to produce to CoolIT before close of fact discovery. Tellingly, there is no indication that Asetek made any such request. *See* Ex. 5 at 15:12-16:3 (never asked).

1 he used the same measuring technique with the same type of tool as Dr. Pokharna had, albeit at a
2 different vertical position along the fins. (Ex. 2 at 137:25-138:9, 138:22-139:14.)

3 Dr. Tuckerman also added at deposition, again for the first time, that Asetek's counsel provided
4 him with "a picture of the *machining document* for the Antarctica device" that purportedly showed
5 "blades that they say they used with calipers measuring that blade." (*Id.* at 139:15-18 (emphasis
6 added); *see also id.* at 139:19-140:8 (providing additional opinions related to the "machining
7 document" image).) This image was neither included in the report (*id.* at 140:14-18) nor produced
8 during discovery. (*See also* Ex. 21 (Materials Considered).) Rather, Asetek's counsel introduced the
9 image for the first time (Ex. 7 ("Exhibit 275")) during a leading redirect over objections from
10 Defendants' counsel. (*See* Ex. 2 at 262:20-264:17.) Asetek's timing in introducing Exhibit 275
11 deprived Defendants of the opportunity to investigate Exhibit 275 and Dr. Tuckerman's opinions with
12 respect to Exhibit 275.

13 Dr. Tuckerman's opinions on "what" Exhibit 275 shows is unsupported and rests solely on
14 what counsel told him the picture shows. The image is reproduced below.



28 (Ex. 7.) The document shown in the photograph is entirely in Danish. The materials shown in the

1 image were not provided. Dr. Tuckerman has no independent basis to assume the tool shown in
 2 Exhibit 275 was used to machine grooves in *Antarctica*'s heat spreader plate because (1) he did not
 3 speak to anyone at Asetek to confirm what the materials depicted were and (2) he is unable to
 4 independently verify what the "machining document" (which is not the actual prior art device) says—
 5 he was not provided the document, he does not speak or read Danish, and he never had the document
 6 translated to English. (Ex. 3 at 13:1-13; Ex. 5 at 18:22-19:2, 22:4-16, 24:20-25.) Moreover, it was
 7 never produced or subject to investigation by Defendants. It is now uncorroborated hearsay *ipse dixit*.

8 **B. Rebuttal Report Regarding Non-Infringement of the Asserted CoolIT Patents**

9 Dr. Tuckerman offers several opinions regarding potential non-infringing alternatives in his
 10 Non-Infringement Rebuttal Report. (Ex. 8 (Tuckerman Expert Rebuttal Report on Non-Infringement),
 11 ¶¶75-84.) At paragraph 84, Dr. Tuckerman opines that "Asetek could implement an end-to-end flow
 12 within a single microchannel array (as in Asetek's Gen 3 and Cooler Master products) and thus
 13 completely avoid CoolIT's patent claims." (*Id.*, ¶84.) He continues with a series of "understandings"
 14 and a reference to CoolIT documentation that appear to serve as the basis for his non-infringing
 15 alternatives opinion on the Gen 3 and Cooler Master products:

16 Moreover, Asetek could implement an end-to-end flow within a single
 17 microchannel array (as in Asetek's Gen 3 and Cooler Master products) and thus
 18 completely avoid CoolIT's patent claims. **It is my understanding that CoolIT**
 19 **may argue that split-flow is needed for the thermal performance requirements**
 20 **demand by the market for liquid cooling products.... It is my understanding**
 21 **that counsel for Asetek has independently confirmed that the MasterLiquid**
 22 **240R does not have split flow. It is further my understanding that the Cooler**
 23 **Master MasterLiquid 240R is a meaningful competitor to Asetek and**
 24 **CoolIT/Corsair's desktop liquid cooling products.** It is therefore reasonable to
 infer that the thermal performance of the non-split flow Cooler Master product is
 acceptable to customers of desktop liquid cooling products. Accordingly, Asetek
 could possibly revert to its non-split flow (i.e., end-to-end flow) design and such
 redesigned products would be acceptable non-infringing alternatives to the accused
 Gen 4, 5, 6, and 7 desktop products.

25 (*Id.* (emphasis added).) However, Dr. Tuckerman admitted under oath that he was "[n]ot at all"
 26 familiar with the Asetek Gen 3 product and does not know whether the Gen 3 product does or does
 27 not "have a split-flow cold plate." (Ex. 5 at 67:2-11.) Similarly, he admitted that he never inspected
 28

the Cooler Master product to independently confirm what the product did and did not have, and he did not conduct any performance testing on the product. (Ex. 3 at 79:22-80:6.) He also admitted that he was unaware of whether Cooler Master was a competitor to Asetek, and he did not ask Asetek. (*Id.* at 80:7-81:1.) Nor did he conduct surveys to determine if the Cooler Master product was a “meaningful competitor” to the Asetek liquid cooling products (or which ones). (*Id.* at 82:16-23.)

C. Report Regarding Infringement of Asetek’s ’362 Patent

1. Asetek’s prior lawsuit

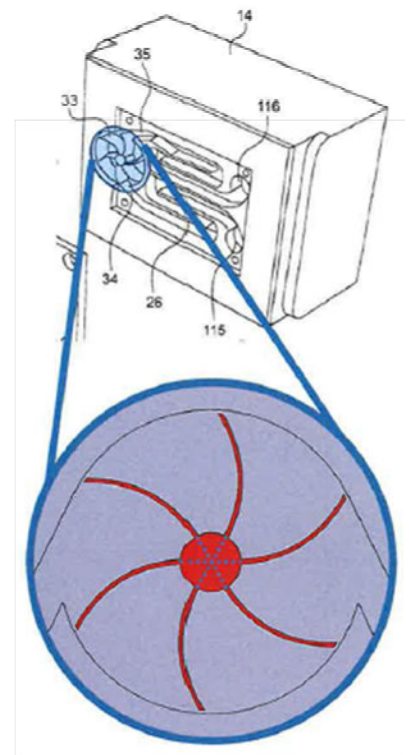
Asetek first asserted the ’362 patent against CoolIT in 2012. That case ended in 2015 with a confidential settlement. Towards the end of that case, CoolIT designed a new impeller with straight blades and informed Asetek. (Ex. 9.) Nearly four years passed before Asetek brought this suit. Acknowledging the lack of “curved blades,” Asetek’s infringement theory is now limited to the doctrine-of-equivalents. But straight is not and cannot not be equivalent to its opposite “curved.”

2. The disputed “curved blades” and “single receptacle” limitations were critical to patentability

The ’362 claims all require “curved” impeller blades. (*See* ’362 patent, claims 17, 19 (remaining asserted claims).)⁷ Asetek added this limitation during prosecution of the parent patent to avoid prior art. (*See, e.g.*, Ex. 10 (U.S. Patent No. 7,971,632 file history, Dec. 18, 2008 Amendment).)

3. The ’362 patent requires “curved blades,” but CoolIT’s products have straight blades

The only embodiment in the ’362 patent showing an impeller with blades is FIG. 15. (Annotated excerpt of FIG. 15 (rotated 90° clockwise) in Dec. 8, 2021 Dr. Abraham Rebuttal Report, at ¶105 (Ex. 11), reproduced at right.) During prosecution of the parent application, Asetek amended its claims to include “an impeller having a plurality of curved blades,” and argued that the impellers in prior art references, such as *Batchelder*, *Chu*, and *Alvaro*, did “not



⁷ See ECF No. 1-1 for U.S. Patent No. 8,240,362 (“’362 patent”).

disclose” that the “impeller [has] a plurality of curved blades[.]” (Ex. 10 (Dec. 18, 2008 Reply to Office Action) at 4, 15-17.)

In the accused CoolIT products (including both H100i and Tamriel), the impeller does not have “curved blades.” Rather, it has straight blades (as shown on the right). (Ex. 12 (Nov. 3, 2021 Tuckerman Report) ¶69.) Asetek’s expert concedes that the blades in CoolIT’s impeller are not curved. (*See id.*, ¶¶290, 321 (admitting that “the blades in the impeller of the H100i Liquid Cooler [and Tamriel design] are not literally curved”).)



III. LEGAL STANDARD

A district court is to function as a “gatekeeper” to determine whether a party’s proffered expert testimony is relevant and reliable. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589-91 (1993). In a patent case, admission of expert testimony in accordance with *Daubert* follows the law of the circuit in which the district court sits. *See Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1390–91 (Fed. Cir. 2003). “[I]n assessing the admissibility of expert testimony under Federal Rule of Evidence 702, the Court must perform ‘a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.’” *Siqueiros v. Gen. Motors LLC*, No. 16-cv-07244-EMC, 2022 WL 74182, at *4 (N.D. Cal. Jan. 7, 2022) (Chen, J.) (citation omitted). The Ninth Circuit lists multiple factors to consider when undertaking this gatekeeping determination, including: “(1) whether a theory or technique can be (and has been) tested, (2) whether the theory or technique has been subjected to peer review and publication, (3) the known or potential rate of error, and (4) whether it is generally accepted in the scientific community.” *Wagner v. Cnty. of Maricopa*, 673 F.3d 977, 989 (9th Cir. 2012) (internal quotation marks omitted) (quoting *Daubert*, 509 U.S. at 593-94). Ultimately, the purpose of the assessment is to exclude speculative or unreliable testimony to ensure accurate, unbiased decision-making by the trier of fact. *See Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 157 (1999) (“[N]othing in either *Daubert* or the Federal Rules of Evidence requires a

district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.”) (citation omitted).

IV. ARGUMENT

A. Dr. Tuckerman’s conclusory “microchannel” opinion is improperly based on speculation, unrecorded methodology and data, and attorney argument

Dr. Tuckerman’s “microchannel” opinions should be excluded in their entirety. His Invalidity Report fails to disclose any methodology or any data that he collected to arrive at his conclusion that “[t]he space between adjacent fins is about 0.9 – 1.0 m.” (Ex. 1, ¶57.)⁸ See *Siqueiros*, 2022 WL 74182, at *7-8 (excluding expert opinion where expert failed to describe the scientific principles or methods he applied to arrive at his opinion); *Salhotra v. Simpson Strong-Tie Co.*, No. 19-cv-07901-TSH, 2022 WL 625078, at *10 (N.D. Cal. Mar. 3, 2022) (excluding *ipse dixit* where expert “disclose[d] no methodology he applied or followed to arrive at that conclusion.”). Dr. Tuckerman’s failure to disclose supporting data or his methodology should be similarly excluded.

Dr. Tuckerman attempts to support his *ipse dixit* numbers with Mr. Eriksen’s uncorroborated, speculative, and inconsistent hearsay. But (1) Dr. Tuckerman never spoke with Mr. Eriksen or anyone at Asetek, and (2) Mr. Eriksen’s testimony was in turn only his “best guess.” (Ex. 2 at 141:2-4; Ex. 3 at 13:1-3; Ex. 4 at 117:17-25.) While there are circumstances in which Dr. Tuckerman can rely on inadmissible hearsay under Fed. R. Evid. 703, the rule was never intended to permit an expert to become a mere mouthpiece for his client. See *Numatics, Inc. v. Balluff Inc.*, 66 F. Supp. 3d 934, 943 (E.D. Mich. 2014) (“Where an expert merely offers his client’s opinion as his own, that opinion may be excluded.” (quoting *ASK Chems. LP v. Comput. Packages, Inc.*, 593 F. App’x 506, 510 (6th Cir. 2014))); see also *Loeffel Steel Prods., Inc. v. Delta Brands, Inc.*, 387 F. Supp. 2d 794, 808 (N.D. Ill. 2005); *Tubular Rollers, LLC v. Maximus Oilfield Prods., LLC*, No. 4:19-cv-03113, 2021 WL 5991744, at *1-2 (S. D. Tex. Dec. 16, 2021). See also *Daubert*, 509 U.S. at 595 (“Rule 703 provides that expert opinions based on otherwise inadmissible hearsay are to be admitted only if the facts or data are ‘of a

⁸ Dr. Tuckerman provides additional discussion in paragraph 57 regarding the state of the art on microchannel technology. To the extent Asetek interprets this language as a secondary obviousness argument, it should be also be stricken as a new invalidity theory for the reasons discussed in Defendants’ Motion to Strike Portions of Dr. Tuckerman’s Invalidity Report.

1 type reasonably relied upon by experts in the particular field in forming opinions or inferences upon
 2 the subject.”) (citation omitted). This is especially true when, as here, measurements could have been
 3 made and recorded.

4 Moreover, Dr. Tuckerman should not be permitted to ambush CoolIT with belated
 5 supplemental opinions at his depositions. Rule 26 requires his report be a “complete statement of all
 6 opinions the witness will express and the basis and reasons for them” inclusive of “the facts or data
 7 considered by the witness forming them[.]” Rule 26(a)(2)(B). It does not provide for *post-facto*
 8 ameliorative disclosure. As Judge Tigar held for Asetek in an earlier case, “subsequently-given
 9 deposition testimony is not a substitution for adequate disclosure in the expert’s original report.”
 10 *Asetek Danmark A/S v. CMI USA, Inc.*, No. 13-cv-00457-JST, 2014 WL 6997670, at *1 n.1 (N.D. Cal.
 11 Dec. 9, 2014); *see also Foshee v. Zuniga*, No. 20-cv-00132-VKD, 2021 WL 1947560, at *8 (N.D. Cal.
 12 May 14, 2021) (“A party may not cure a failure to disclose an expert opinion in a written report by
 13 supplementing the expert’s disclosure with later deposition testimony.”); *Edwards Lifesciences Corp.*
 14 *v. Meril Life Scis. Pvt. Ltd.*, No. 19-cv-06593-HSG, 2022 WL 254348, at *7 (N.D. Cal. Jan. 27, 2022)
 15 (striking expert testimony based on information counsel elicited at the end of the expert’s deposition
 16 and not in the expert report).

17 Dr. Tuckerman’s “microchannel” opinions at deposition are not only untimely but
 18 substantively suspect. While Dr. Tuckerman belatedly claims he personally measured the grooves
 19 between heat spreader plate fins in the *Antarctica* sample, he offers conflicting testimony as to when
 20 measurements were made. (*Compare* Ex. 2 at 137:22-25 (claiming measurements taken after Eriksen
 21 August 25, 2021 deposition), *id.* at 141:6-10 (noting Tuckerman’s measurements were “larger” than
 22 Mr. Eriksen’s recollection), *with id.* at 122:20-123:11, 153:23-154:10; Ex. 5 at 8:23-9:12, 13:13-14:11
 23 (claiming measurements taken before Eriksen deposition on July 5, 2021).) He purportedly used the
 24 same methodology as Dr. Pokharna except measuring “at the base” of the grooves—information he
 25 disclosed *after* Asetek received Dr. Pokharna’s rebuttal report. However, Dr. Tuckerman did not
 26 record his measurements or provide evidence showing how he measured the grooves, hiding his
 27 supposed methods from review. (Ex. 2 at 138:14-16; Ex. 5 at 15:12-16:3 (confirming he did not record
 28 measurements, stating that “I wasn’t asked to do that.”).) Defendants and the Court are left with only

1 his contradictory “word” as the basis that he measured the heat spreader plate grooves in the *Antarctica*
 2 sample. No assessment of the reliability of Dr. Tuckerman’s opinion can be made, which is simply
 3 not enough under *Daubert*. *United States v. Hermanek*, 289 F.3d 1076, 1094 (9th Cir. 2002) (“As a
 4 prerequisite to making the Rule 702 determination that an expert’s methods are reliable, the court must
 5 assure that the methods are adequately explained.”); *United States v. Rincon*, 28 F.3d 921, 924 (9th
 6 Cir. 1994) (noting that an expert’s methodology must be described “in sufficient detail” such that the
 7 district court can determine if it is reliable). *See also Fail-Safe, L.L.C. v. A.O. Smith Corp.*, 744 F.
 8 Supp. 2d 870, 888-893 (E.D. Wis. 2010) (rejecting expert analysis that was “in a black box out of the
 9 view of the court ... the court cannot simply take an expert’s word for a specific proposition.”).

10 With respect to the image shown in Exhibit 275, Dr. Tuckerman’s opinions and testimony
 11 should also be excluded as late, and as pure attorney argument. Exhibit 275 is inadmissible hearsay
 12 that was never previously produced. Asetek’s counsel provided Exhibit 275 to Dr. Tuckerman after
 13 the parties exchanged expert reports and represented to him that it described an *Antarctica* “machining
 14 document,” blades used to cut the grooves in the *Antarctica* device, and a tool to measure the blade
 15 thickness. (Ex. 2 at 139:15-18; Ex. 5 at 18:22-20:21, 22:10-16, 24:20-25:8.) Dr. Tuckerman failed to
 16 personally review or inspect the document—he never even saw a copy in a language he could read—
 17 and he did not independently measure the blade’s thickness. (Ex. 5 at 20:25-23:7.) He does not even
 18 know who took the measurement. (*Id.* at 23:2-4.) Similar to the non-infringing alternatives opinions
 19 on Asetek’s Gen 3 and the Cooler Master product in his Non-Infringement Rebuttal Report (*see infra*),
 20 he has no independent judgment, only what his attorneys tell him is true.

21 Altogether, Dr. Tuckerman lacks an independent basis to assume the tool shown in Exhibit 275
 22 was used to machine grooves in *Antarctica*’s heat spreader plate, let alone the version of *Antarctica*
 23 he relies on in his Invalidity Report. He did not machine the heat spreader plate himself or watch it
 24 being done. He did not speak to anyone at Asetek to confirm what the materials depicted were and he
 25 is unable to independently verify what the “machining document” says. (Ex. 3 at 13:1-13; Ex. 5 at
 26 18:22-19:2, 22:4-16, 24:20-25.) Dr. Tuckerman cannot contextualize the image in Exhibit 275 without
 27 assuming representations from Asetek’s counsel as true (another layer of hearsay). He thus
 28 unreasonably relies on *double hearsay*. *Accord Tubular Rollers*, 2021 WL 5991744, at *1 (“This

1 Court has not found any authority—nor has it been cited to any authority—that an expert can
 2 reasonably rely on double hearsay relayed to him/her by an employee of a party with a vested interest
 3 in the outcome of the case.”). In doing so, he compromises the independence and reliability of his
 4 opinions, once again offering *ipse dixit* as a mere mouthpiece for Asetek and its attorneys. *See Gen.*
 5 *Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997); *Salhotra*, 2022 WL 625078, at *10 (finding expert
 6 testimony unreliable where, *inter alia*, the expert failed to inspect samples at issue in a product liability
 7 case); *Numatics*, 66 F. Supp. 3d at 941 (“An expert witness who is merely a party’s lawyer’s avatar
 8 contributes nothing useful to the decisional process.”).

9 There is no justification for Dr. Tuckerman’s belated opinions. *Antarctica* is an Asetek
 10 product. Counsel has had a physical sample of a version of the device since at least September 6,
 11 2019 when Asetek served its invalidity contentions. (*See, e.g.*, Ex. 13 (pictures of sample device).)
 12 Supporting materials are exclusively within Asetek’s custody and control. Dr. Tuckerman thus had
 13 access to the sample he relied on and supporting materials well before his Invalidity Report was due.
 14 Moreover, CoolIT produced to Asetek the photographs and videos Dr. Pokharna recorded showing his
 15 measurements almost two months before the close of fact discovery, providing Asetek and Dr.
 16 Tuckerman ample time to independently collect and produce evidence related to the *Antarctica*
 17 sample’s channel widths.⁹ If the Court credits July 5, 2021 as the day Dr. Tuckerman measured
 18 *Antarctica*’s channel widths—also almost two months before the close of fact discovery—this makes
 19 his omission of recorded measurements in his Invalidity Report all the more egregious.¹⁰

20 Defendants have been prejudiced by Dr. Tuckerman’s belated opinions and his reliance on
 21 Exhibit 275 as purported corroboration for his paragraph 57 “microchannel” conclusion. Dr.
 22 Tuckerman ambushed Defendants by including this additional testimony for the first time on leading
 23 redirect at his deposition, leaving neither Defendants nor the Court the ability to investigate his
 24

25 ⁹ Nevertheless, Dr. Tuckerman testified that “I had his -- Eriksen’s information and I had my own
 26 measurements at the base, and I didn’t think there was going to be a dispute on the issue, so I didn’t
 27 pursue it further.” (Ex. 2 at 140:14-23.) It is questionable whether Asetek’s counsel informed Dr.
 28 Tuckerman of Dr. Pokharna’s measurements before Dr. Pokharna submitted his rebuttal report.

¹⁰ As Asetek had access to the *Antarctica* physical sample and was aware of Dr. Pokharna’s
 measurements by early July 2021, it could also be reasonably inferred that Asetek never asked Dr.
 Tuckerman to record his measurements because “showing his work” harmed Asetek’s invalidity case.

1 methodology. *Hermanek*, 289 F.3d at 1094 (court must be able to assess expert methodology under
 2 Rule 702); *Rincon*, 28 F.3d at 924 (same). As the case schedule does not allow for supplemental
 3 rebuttal reports, Dr. Pokharna did not have an opportunity to independently test and opine on Dr.
 4 Tuckerman's new purported methodology. Nor could he provide opinions related to the image shown
 5 in Exhibit 275. Accordingly, all related opinions should be stricken. *See Edwards Lifesciences*, 2022
 6 WL 254348, at *7 (striking opinions elicited by counsel at the end of the expert's deposition and not
 7 in the expert report).

8 **B. Dr. Tuckerman's Non-Infringement Report and Invalidity Report should be**
 9 **stricken because Dr. Tuckerman did not prepare his reports**

10 The unreliability of Dr. Tuckerman's opinions is not limited to his opinion on "microchannels."
 11 Defendants are concerned that Dr. Tuckerman did not prepare his Invalidity Report and Non-
 12 Infringement Rebuttal Report, which may warrant striking both reports entirely. Rule 26(a)(2)(B)
 13 requires that Asetek's disclosure of Dr. Tuckerman as its technical expert "be accompanied by a
 14 written report--prepared and signed by the witness[.]" However, Dr. Tuckerman admitted in his
 15 December 20, 2021 and December 22, 2021 depositions that Asetek's counsel drafted his reports. (Ex.
 16 2 at 144:12-147:6; Ex. 3 at 15:1-10.) He also stated, with respect to the Invalidity Report, that he did
 17 not identify his own obviousness grounds. (Ex. 2 at 167:22-168:18; *see also id.* at 169:10-170:10
 18 (admitting counsel identified all prior art except his thesis and *Kandlikar*.) While Rule 26 does not
 19 preclude counsel from providing assistance to experts in preparing their reports, it "does not permit a
 20 party to prepare the report for the witness." *See Numatics*, 66 F. Supp. 3d at 942 (internal quotation
 21 marks and citation omitted).

22 Examples abound in his depositions that Dr. Tuckerman was only nominally involved in
 23 preparing these reports. He was unfamiliar with his Materials Considered and confused his
 24 understanding of documents within it (*e.g.*, an IPR Final Written Decision compared to an expert
 25 declaration). (Ex. 3 at 16:9-22:9.) And in his December 20, 2021 deposition on his Invalidity Report,
 26 Dr. Tuckerman demonstrated a lack of understanding on what his obviousness grounds were, let alone
 27
 28

1 what an obviousness ground is or what it means to rely on a reference.¹¹ (*See* Ex. 2 at 161:8-163:20,
 2 165:12-167:2, 170:23-172:13, 175:23-176:11.) Dr. Tuckerman's unfamiliarity with the most basic
 3 precepts of his obviousness analysis strongly suggest that he barely participated in the drafting process.
 4 *Numatics*, 66 F. Supp. 3d at 945 ("But [the expert's] complete lack of knowledge about the factors
 5 relevant to assessing obviousness undermines the defendants' assertion that [the expert's] conclusions
 6 are his own."). The *Kang* chart attached to Dr. Tuckerman's Invalidity Report also recycles annotated
 7 pictures from Dr. Tilton's expert declaration in IPR2020-00825 (albeit with slightly different colors
 8 and wording at times). (*Compare, respectively*, Ex. 14 (Tuckerman's *Kang* '284 invalidity claim
 9 chart), Chart III, at 1, 2, 3, 6 (FIG. 1 at bottom) *with* Ex. 15 (Dr. Tilton's Expert Declaration in
 10 IPR2020-00825), at 103, 104, 105, 117.) Dr. Tuckerman was generally unfamiliar with his Non-
 11 Infringement Rebuttal Report as well, often just reading and reciting his report verbatim at his
 12 December 22, 2021 deposition in response to many simple questions. (*E.g.*, Ex. 3 at 33:2-36:2, 37:23-
 13 39:19, 114:8-116:23, 117:21-123:14 (asking for numerous materials to answer simple question),
 14 151:6-155:20, 169:14-175:13, 183:18-188:23, 212:3-213:8, 229:20-233:4.)

15 In one instance, Dr. Tuckerman was unaware that paragraphs 48 and 50 of his Non-
 16 Infringement Rebuttal Report were virtually verbatim copies of paragraphs 2 and 4 of the corrected
 17 supplemental declaration of Asetek's former expert Dr. Donald Tilton in IPR2020-00825—a
 18 document not listed on Dr. Tuckerman's Materials Considered (*see* Ex. 16). (*Compare* Ex. 17, ¶¶2,
 19 4, *with* Ex. 8, ¶¶48, 50; *see also* Ex. 18 (redline comparison of paragraphs between these two
 20 documents).) Asetek's counsel in this case overlaps with Asetek's counsel in the IPR proceeding. Dr.
 21 Tilton's corrected supplemental declaration was dated May 10, 2021, whereas Dr. Tuckerman's Non-
 22 Infringement Rebuttal Report was served almost seven months later on December 8, 2021. (Ex. 3 at
 23 24:10-13.) Dr. Tuckerman was asked to review these paragraphs during his December 22, 2021
 24 deposition. When confronted with a redline of the paragraphs, Dr. Tuckerman conceded:

25
 26 ¹¹ Dr. Tuckerman also took an exceedingly long time to answer simple questions and often just read
 27 his report into the record in response to questions from Defendants' counsel. (*See, e.g.*, Ex. 2 at
 28 119:13-121:20 (studying reference for almost ten minutes without answering whether he relied on it),
 156:6-159:5 (taking five minutes to answer a single question on the presence of a "seal"), 161:8-
 162:15 (reciting his report), 167:16-168:18.)

1 Q. I'll just represent to you that the Exhibit 278 is a comparison of paragraphs 2
 2 and 4 from Dr. Tilton's corrected supplemental declaration in IPR2020-00825 to
 3 paragraphs 48 and 50 in your noninfringement report, and that it was generated
 4 using a computer program. Now, with that understanding in mind, Dr. Tuckerman,
 did you ask Dr. Tilton for permission to copy the words he used in paragraphs 2
 and 4 of his corrected supplemental declaration?

5 A: **I did not think it was necessary** in -- that this was not an issue of, you know,
 6 publication matters ... anyway, you know, when something is true and correct and
 7 technically correct, you know, **I don't feel the need to change around the words.**
 8 You know, if I was publishing a paper, you know, then issues of permission might
 9 be relevant. But when I'm just stating a truth -- and let me be very clear, I'm not
 relying on Dr. Tilton's opinions. I think Dr. Tilton is correct, but these are -- these
 are exactly my own opinion on the subject because they're manifestly and obviously
 true physical facts so ...

10 *****

11 Q. In your professional opinion, do you believe it is acceptable to copy the words
 12 of another author without citing that author?

13 A: **I would say it depends on context.**

14 (Ex. 3 at 29:7-31:17 (emphasis added; objections omitted).) The simple fact is that the opinions
 15 rendered at paragraphs 48 and 50 of Dr. Tuckerman's were first Dr. Tilton's, and should be stricken.
 16 *See Numatics*, 66 F. Supp. 3d at 943-44 (providing examples where courts have excluded expert
 17 reports where the expert did not write his own report and substantial similarities existed between
 18 reports of two different experts); *Scatuorchio Racing Stable, LLC v. Walmac Stud Mgmt., LLC*, No.
 19 5:11-374-DCR, 2014 WL 1744848, at *7 (E.D. Ky. Apr. 30, 2014) ("Courts have found exclusion of
 20 an expert under Rule 37 appropriate when a report is improperly adopting the opinion of another.").
 21 Regardless, the issues regarding paragraphs 48 and 50 exemplify the larger problem—that Dr.
 22 Tuckerman may not have prepared his reports as required by Rule 26.¹²

23 **C. Dr. Tuckerman's non-infringing alternatives opinions on Asetek's Gen 3 and the**
 24 **Cooler Master product should be stricken from Paragraph 84 of his Non-**
 25 **Infringement Rebuttal Report**

26 Setting aside the issues identified in Section IV.B, Dr. Tuckerman should not be permitted to

27 ¹² Should the Court strike Dr. Tuckerman's Non-Infringement Rebuttal Report and Invalidity Report
 28 by finding that he did not prepare them pursuant to Rule 26, it need not reach a decision on several of
 Defendants' Motions to Strike and other *Daubert* issues related to those reports.

1 opine that Asetek's Gen 3 product and Cooler Master product are acceptable non-infringing
 2 alternatives in his Non-Infringement Rebuttal Report. Dr. Tuckerman admitted at deposition that he
 3 was "[n]ot at all" familiar with the Asetek Gen 3 product and does not know whether that product does
 4 or does not "have a split-flow cold plate." (Ex. 5 at 67:2-11.) He would not know (1) any differences
 5 in thermal performance between Asetek's Gen 3 and its Gen 4, 5, 6, and 7 products; or (2) if said
 6 differences would be acceptable to its customers. His opinions are thus unreliable and irrelevant.

7 Similarly, Dr. Tuckerman admitted that he never inspected or conducted performance testing
 8 on the Cooler Master product. (Ex. 3 at 79:22-80:6.) Dr. Tuckerman also acknowledged that he is
 9 unaware of whether the Cooler Master product is a competitor with the infringing Gen 4, 5, 6, and 7
 10 Asetek products. (*Id.* at 80:7-81:1.) He rests his understanding that these products compete in the
 11 marketplace solely on the inclusion of the Cooler Master product in an internal *CoolIT* testing
 12 document. (*Id.* at 82:25-83:11.) This document says nothing about whether *Asetek customers* would
 13 have found the Cooler Master product an acceptable alternative.

14 In sum, Dr. Tuckerman has no independent basis to assess whether the thermal performance
 15 of these products would be acceptable to Asetek customers, let alone that these products do not infringe
 16 the Asserted CoolIT Patents. See *Acceleration Bay LLC v. Activision Blizzard Inc.*, No. 1:16-cv-
 17 00453-RGA, 2019 WL 4194060, at *8 (D. Del. Sept. 4, 2019); *Smart Skins LLC v. Microsoft Corp.*,
 18 No. C15-544-MJP, 2016 WL 4148091, at *2 (W.D. Wash. July 1, 2016) ("[T]he alleged infringer has
 19 the burden of showing that non-infringing alternatives were both available to it and *were acceptable*
 20 *to its customers ...*") (emphasis added). As the court observed in *Acceleration Bay*:

21 [The expert's] assumption of non-infringement of earlier versions of the accused
 22 products is baseless and must be excluded. Defendant argues that [the expert] does
 23 not opine on non-infringing alternatives, but, rather, assumes non-infringement
 24 based on Plaintiff's decision not to pursue infringement claims from prior to 2012.
 25 It is undisputed that **none of its technical experts have opined that the earlier**
 26 **games are non-infringing**. Thus, the only support for the conclusion that the
 27 earlier versions of the games are non-infringing alternative is **[the expert's]**
 28 **assumption**. A damages' expert's assumption is **not sufficient** to support a
 damages opinion based on a particular non-infringing alternative. Accordingly, I
 will exclude [the expert's] assumption that earlier game versions are non-infringing
 alternatives and any damages conclusions stemming from that assumption.

1 *Acceleration Bay*, 2019 WL 4194060, at *8 (emphasis added; citations omitted). Like the expert in
 2 *Acceleration Bay*, Dr. Tuckerman's non-infringing alternatives opinions for Asetek's Gen 3 product
 3 and the Cooler Master product also rest on unexamined assumptions on whether these products
 4 infringe the Asserted CoolIT patents, and whether Asetek customers would find them acceptable. So,
 5 as in *Acceleration Bay*, these opinions should be stricken.

6 **D. Dr. Tuckerman's opinions on the "curved" versus "straight" blades should**
 7 **be stricken**

8 Dr. Tuckerman's infringement theory under the doctrine of equivalents is primarily based on
 9 Dr. Stein's simulation results. (Ex. 12, ¶¶290-293, 321.) As explained in detail in the co-pending
 10 *Daubert* motion on the Expert Report of Dr. Carl-Frederik Stein Regarding Pump Impeller Designs
 11 and Performances, Dr. Stein's testimony is irrelevant and unreliable, and thus Dr. Tuckerman's
 12 testimony, to the extent it relies on Dr. Stein's testimony, is also irrelevant and unreliable and should
 13 be stricken. But even without reliance on Dr. Stein's testimony, Dr. Tuckerman's testimony is
 14 independently unreliable at least for the following reasons.

15 **1. Dr. Tuckerman's doctrine of equivalents theory is logically flawed by**
 16 **conflating "curved" blades with "non-radial" blades that admittedly**
include non-curved blades

17 Dr. Tuckerman's hypothetical construction of the "curved blades" limitation under the doctrine
 18 of equivalents is deduced from illogical reasoning, and thus his opinions based on such construction
 19 are unreliable and should be excluded. The claim language plainly and indisputably requires "an
 20 impeller having *curved* blades." (Ex. 19 (Tuckerman 12/30/21 Depo. Tr.) at 58:19-25 (admitting that
 21 "[t]he claim language requires that the blades of the impellers have to be curved" and that "the
 22 adjective 'curved' modifies the noun 'blades'").) "Curved" describes the shape of the blades, as
 23 recognized by even Dr. Tuckerman himself, who admitted that the word "curve ... would describe
 24 shapes that have curvature somewhere on them." (*Id.* at 263:8-14.) When asked specifically for his
 25 definition of "curved blades," Dr. Tuckerman responded as follows:

26 Q. What is your definition of curved blades?

27 A. A -- okay. A definition of curved blade. **A blade that has an -- an arc to it.**
 28 **It's not -- it's not everywhere linear.**

(*Id.* at 53:5-8 (emphasis added)).¹³

Nevertheless, Dr. Tuckerman ignores the express requirement that “curved blades” be “curved” and have “an arc to [them]” even according to him, and, in an attempt to show (false) equivalency, proposes that “curved blades” be hypothetically construed as “non-radial blades,” which has nothing to do with the shape of the blades. (Ex. 12 (Nov. 3, 2021 Tuckerman Report), ¶292 (“in a hypothetical claim covering the equivalents of an ‘impeller having curved blades,’ this claim term would be written as an ‘impeller having non-radial blades,’ or an ‘impeller having curved blades or other non-radial blades that perform like curved blades’”).) Here is how he erroneously reached that construction.

First, he opined that “a straight impeller is *generally radial*” without any support from intrinsic or extrinsic evidence. (*Id.*, ¶291 (emphasis added).) And then, he deduced without support that, since a “straight” impeller is now “radial,” a “curved” impeller must be “non-radial.” (*Id.*, ¶292.)

But Dr. Tuckerman’s deduction of this hypothetical construction is logically flawed. As an initial matter, the words “straight” and “radial” are not synonymous or otherwise coextensive as plain English. Thus, his unfounded opinion that “a straight impeller is generally radial” merely *narrows* the scope of “straight” impellers by requiring them to be *also* “radial.” (*See id.*, ¶¶291-292.) It does *not* automatically broaden the scope of “curved” blades to somehow include all “non-radial” blades. This leap taken by Dr. Tuckerman is illogical because non-radial blades include straight blades, contradicting the express requirement that “curved blades” be “curved” and have “an arc to [them]” according to him. (Ex. 19 at 53:5-8.)

Indeed, Dr. Tuckerman conceded that the terms “curved blades” and “non-radial blades” do not have the same scope:

Q. So the terms “curved blades” and “nonradial blades” do not have the same scope, correct?

A. A curve, to me, implies that there is, you know, **some nonlinearity to the shape of the blade** so that it, you know, has an arc to it. **So they’re not identical terms, no.**

¹³ Further, Dr. Tuckerman distinguished “curved blade[s]” from “straight blade[s]” emphasizing that “‘curved’ and ‘straight’ certainly mean different things, for -- for sure.” (Ex. 19 at 52:22-53:3.)

(*Id.* at 56:21-57:4 (emphasis added; objection omitted).) Critically, he further admitted that **curved blades are “a subset of the class of nonradial blades[.]”** (*Id.* at 56:14-20 (emphasis added).) That is, Dr. Tuckerman’s own testimony confirms that “non-radial blades” include **non-curved** blades. (*Id.*) In sum, even assuming a “straight impeller” were “generally radial,” it does *not* logically follow that “curved blades” are suddenly equivalent to “non-radial blades” that include non-curved blades. Dr. Tuckerman’s attempt to rewrite “curved blades” into “non-radial blades” that include blades with no “curvature” or “arc” is illogical and must be rejected.

Dr. Tuckerman’s false equivalency theory based on the illogical construction amounts to elimination of the “curved” limitation by redefining its scope with a different criterion not based on shape—“non-radial” versus “radial”—that has absolutely nothing to do with “curvature” or “arc.” (Ex. 19 at 263:8-14; *accord id.* at 53:5-8.) This elimination causes the false equivalents of “curved blades” to admittedly include non-curved blades (*id.* at 56:14-20) and fails all four tests under *Wagner*, 673 F.3d at 989. First, Dr. Tuckerman cites no evidence, intrinsic or otherwise, to support his theory that “curved blades” are equivalent to “non-radial blades”—*i.e.*, there is no evidence to show that his equivalency theory has been tested (or is even testable). Second, for the same reason, there is no evidence to show his theory has been subjected to peer review or publication. Third, the error rate is potentially 100% because, as explained above, his theory is logically flawed. And finally, again, Dr. Tuckerman provides no evidence that his (false) equivalency theory is “generally accepted in the scientific community.” *Id.* Thus, Dr. Tuckerman’s doctrine of equivalents testimony based on his illogical theory should be excluded.

2. Dr. Tuckerman’s multiple definitions of “radial” blades are unreliable

In his report, Dr. Tuckerman defines “a straight impeller” to be “generally radial, *i.e.*, the impeller blades are perpendicular to the axis of rotation” (Ex. 12, ¶291), but he disagreed with himself during deposition, and so did Dr. Carl-Frederik Stein, another expert of Asetek. Indeed, both Dr. Tuckerman and Dr. Stein testified that the definition of “radial blades” provided in Dr. Tuckerman’s infringement report is unreliable:

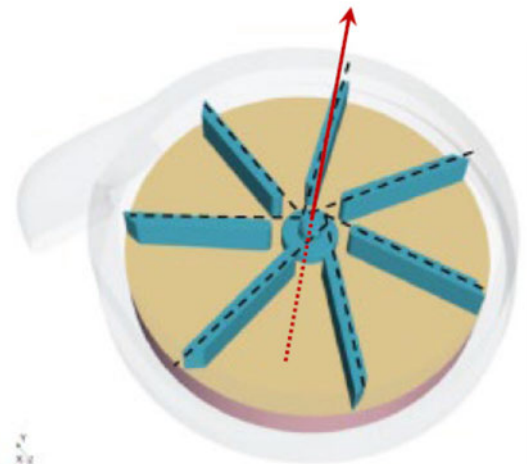
Q. Again, what is your definition of radial blades?

A. Right. Okay. So as I'm looking down on the axis of rotation, I've got -- the impeller is generally mounted on, like, a circular disk or whatever, and the blade that I'm looking -- the blades that I'm looking at would need to be along the -- the **radius** of that -- the **radius** of that circle. So they -- they don't have to go all the way to the center. In fact, they can't because normally that's where your inlet is, and they don't actually always have to go to the edge because you've got to have some clearance, but they have to be along the **radius**. They have to be coincident with radial lines drawn from the center going outward, and **that's the best way I can describe it.**

(Ex. 19 at 53:15-54:5 (emphasis added).) As can be seen above, during his deposition, Dr. Tuckerman gave a definition of "radial blades" *different* from that in his report, which mentions nothing about, e.g., "radius." (*Compare id. with* Ex. 12, ¶291.) And Dr. Tuckerman's new definition provided in his deposition mentioned nothing about the blades being "perpendicular" to anything, which in contrast is included in the definition provided in his report. (*Id.*) Then, amazingly, Dr. Stein, agreed that the alleged CoolIT blades are "radial" blades under the definition in Dr. Tuckerman's infringement report, i.e., "blades [that] are perpendicular to the axis of rotation" (Ex. 12, ¶291 (emphasis added)):

Q. **The blades on the CoolIT impeller depicted on Page 63 of Dr. Abraham's report [reproduced on the right] are perpendicular to the axis of rotation; correct?**

A. The blades are not straight blades because they are not perpendicular to the direction of rotation. I may have to correct that previous statement. But they are, of course, **perpendicular to the axis of rotation.**



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(Ex. 20 (Stein 1/11/22 Depo. Tr.) at 67:13-22 (emphasis added; objection omitted).) By agreeing that the alleged CoolIT blades are "radial" under Dr. Tuckerman's definition in the infringement report, Dr.

Stein effectively admitted that the alleged CoolIT blades do not infringe the "curved" limitation. Indeed, according to Dr. Tuckerman, "you *can't* be *curved* and be *radial* at the same time." (Ex. 19 at 56:17-18 (emphasis added).) That is, under Dr. Tuckerman's definition of "radial" blades in his report, Asetek's two experts agreed that the alleged CoolIT blades are "radial" and thus do not infringe

the “curved blades” limitation under the doctrine of equivalents. (*Compare id. with* Ex. 20 at 67:13-22 and Ex. 12, ¶ 291.)

Dr. Stein provided yet a *third* definition of “radial blades” that is different from the two above provided by Dr. Tuckerman:

Q. Dr. Stein, are you equating straight blades with radial blades?

A. I am equating them in the context of perp--- pump technology and in this study.

Q. So you are equating them with respect to your report. Is that fair?

A. In my report, as I understand pump technology, straight blade is a radial blade and a radial blade is a definition of straight. It’s a **blade that is perpendicular to the direction of rotation.**

(Ex. 20 at 55:7-17 (emphasis added).) This definition is notably different from the definition of “radial blades” provided in Dr. Tuckerman’s report: “blades [that] are perpendicular to the axis of rotation.” (Ex. 12, ¶291 (emphasis added).) Dr. Stein then testified that he had to correct Dr. Tuckerman’s definition for “radial” blades in the infringement report, calling it a “typo”:

A. **I have to correct Dr. Tuckerman’s opinion that it is actually a direction of rotation that it has to be perpendicular to define a straight blade -- or radial -- straight radial blade.**

Q. So you have to correct Dr. Tuckerman --

A. I have to correct that the relevant distinction of a -- of a **straight blade is that it is perpendicular to the direction of rotation. It’s a typo.** I’m sure that’s what Dr. Tuckerman meant. I didn’t even spot it until we talked about it.

Because it is trivial and true that it’s perpendicular to the axis of the direction, but it is not the distinctive feature. **The distinctive feature is that it’s perpendicular to the direction of rotation** feed but in a radial coordinated [*sic*] system.

(Ex. 20 at 68:3-18 (emphasis added).)

Between Asetek’s two experts, at least three different definitions of “radial” blades were provided, and at least under one of them (the one set forth in Dr. Tuckerman’s infringement report), both experts agreed that the alleged CoolIT blades are “radial” and cannot infringe even under Asetek’s hypothetical claim. Dr. Stein also called Dr. Tuckerman’s definition in the infringement report a “typo.” These admittedly contradictory definitions fail all four tests under the Ninth Circuit

1 law. *Wagner*, 673 F.3d at 989. First, neither Dr. Tuckerman nor Dr. Stein cites any evidence, intrinsic
 2 or otherwise, to support any of their definitions of “radial” blades—*i.e.*, there is no evidence that their
 3 definitions have been tested (or even testable). Second, for the same reason, there is no evidence to
 4 show that their definitions have been subjected to peer review or publication. Third, the potential error
 5 rate of these definitions is definitely high because, as explained above, both Asetek’s experts agreed
 6 the alleged CoolIT blades are “radial” under at least one of these definitions, contradicting
 7 fundamentally Dr. Tuckerman’s infringement theory. And finally, neither expert provides any
 8 evidence that their definitions are generally accepted in the scientific community.” *Id.* Thus, Dr.
 9 Tuckerman’s doctrine of equivalents testimony based on his definitions of “radial” blades should be
 10 excluded as unreliable.

11 **V. CONCLUSION**

12 For the foregoing reasons, Defendants respectfully request the Court exclude the entirety of
 13 Dr. Tuckerman’s Invalidity Report and Non-Infringement Report, or at least: Dr. Tuckerman’s
 14 opinions in Paragraph 57 of his Invalidity Report, his opinions in his invalidity charts that the channels
 15 in *Antarctica* are “microchannels,” and any testimony related to whether the *Antarctica* sample has
 16 “microchannels” from his December 20, 2021 and March 8, 2022 depositions, including his opinions
 17 related to Exhibit 275; and Dr. Tuckerman’s opinions in Paragraphs 48, 50, and 84 of his Non-
 18 Infringement Rebuttal Report. Defendants also request the Court exclude Dr. Tuckerman’s opinions
 19 in Paragraphs 290-293, and 321 of his Infringement Report.

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/s/ Reuben H. Chen

COOLEY LLP
HEIDI L. KEEFE (178960)
(hkeefe@cooley.com)
REUBEN H. CHEN (228725)
(rchen@cooley.com)
DANIEL J. KNAUSS (267414)
(dknauss@cooley.com)
ALEXANDRA LEEPER (307310)
(aleeper@cooley.com)
DEEPA KANNAPPAN (313573)
(dkannappan@cooley.com)
3175 Hanover Street
Palo Alto, CA 94304-1130
Telephone: (650) 843-5000
Facsimile: (650) 849-7400

DUSTIN M. KNIGHT (*pro hac vice*)
(dknight@cooley.com)
11951 Freedom Drive, 16th Floor
Reston, VA 20190
Telephone: (703) 456-8000
Facsimile: (703) 456-8100

*Attorneys for Defendant and Counter-claimant
COOLIT SYSTEMS, INC. and Defendants
CORSAIR GAMING, INC. and CORSAIR
MEMORY, INC.*

GREENBERG TRAURIG, LLP
KYLE D. CHEN (SBN 239501)
(kchen@gtlaw.com)
1900 University Avenue
East Palo Alto, CA 94303
Telephone: (650) 289-7887
Facsimile: (650) 328-8508

Attorneys for Defendant CoolIT Systems, Inc.